Baking Powders for Quick Work, Variety and Uniform Products

By Anne Lewis Pierce and Anna Stanley, *Institute Staff*

The Leading Types of Baking Powders: Their Standard Strength and What Is in Them

ABOUT no food has there raged a more pitiless controversy than over the seemingly sim- ...d bland baking powder.

The two outstanding points about ...king powder are:

(1) How much leavening power has ...? That is, how much available car... dioxide is formed when heat and ...isture set it free to "raise" the ...e or biscuit?

(2) What is left in the bread by ... baking powder when its work is ...e? What does it add to the food, ...d is it helpful, or harmful, or neg... ...ible?

Standard "Raising" Power

As to the first point, the govern... ...nt standard requires that a bak... ...g powder of any kind must have ...t less than 12 per cent of available ...bon dioxide. The powder exam... ...d contained at least 12.5 per cent, ...th the exception of Rumford, ...ich contained 12.8 per cent on ... first test, and Royal, 12.7 per ...t on the first test. The other ...wders named ran below the stand... ...d (giving 8 to 10 per cent) on the ...t sample, but showed 12.5 per ...t on a second sample.

Baking powder may lose strength ... standing. Don't buy a rusty, ...atherbeaten can. It would be an ...cellent plan to have a date on a ...king powder can, as on long stand... ...g some of its "power" may be lost. ...t a faulty can, or bad storage ...ditions, too much heat or mois... ...re may deteriorate baking powder ...re than age under more favorable ...ditions, so do not jump at conclu... ...ns from one can, so to speak. ...y powder with 12.5 of carbon di... ...ide available will give good cooking ...ults.

What's in It?

As to the second point of what baking powder is and what it ...ves in the food when its work is ...e. This question was studied care... ...lly under the food law and the ...neral conclusion reached was that ... very small amount of slightly ...thartic substances was left in the ...f in all cases, but not enough to ... harmful under normal conditions, ... unless served to the exclusion of ...her breadstuffs, or carelessly ...ked.

In the old days the housekeeper had to measure out her own acid (sour milk or molasses or cream of tartar) and then baking soda (alkali), which when moist and warm reacted and set free the gas that aerated or raised the bread. And woe betide if the two were not well balanced and the "saleratus" added a disagreeable taste to a heavy, soggy bread. Our commercial baking powders are merely an acid and an alkaline substance mixed together in the right proportions to form the desired amount of gas, and bound together, or, rather, separated, by some inert substance, like starch, so that they cannot combine and set free the gas before it is wanted.

Distinctive Features

The difference between baking powders lies in the substances selected to play the rôles of acid and alkali and the purity and quality of the materials used. Before the food law days baking powders often contained arsenic or lead, the contamination taking place in the vats in which they were made, or mineral matter, like talc, might be added to dilute them. The powders examined are all free from any faults of this kind and are true to type.

That is, the phosphate powders, such as the Rumford, used calcium and phosphate, obtained from bone or rock. A slightly different type of powder is that using a mono-sodium phosphate instead of the calcium. This is still a phosphate powder, but is made from highly purified materials and leaves a somewhat different residue in the finished loaf. Ryzon, a comparatively new product, represents this type.

The tartrate powders depend on tartaric acid, obtained from the lees of wine, the potassium tartrate of the grape being deposited during the fermentation.

The alum powders get their acidity from soda alum, which theoretically has been considered the most objectionable type, since it is a mineral non-food substance at best, but it was declared by the government to be, like the other powders, non-injurious, except for a slight cathartic action when used in large quantities. The alum powders are cheaper, also, and stand up well as far as holding their "raising" power is concerned. No alum powders were considered in this test.

A Summing Up of the Controversial Points

The long and short of the matter ...that all baking powders leave a ...ry small residue in the breads ...ade from them which is cathartic ... its nature, but present in such ...all amounts as to be negligible ...m a health point of view unless baking powder products are too exclusively used.

The second point is that the breads made from them are quickly raised and more quickly baked than yeast breads and are usually eaten hot and so are not quite so easy of digestion and not so well suited to the use of children or old persons or those of feeble digestion as yeast breads. But again, their moderate use is most convenient and desirable.

Prices and Quality

Third, the products examined and approved are true to type, free from adulteration and contain the standard amount of leavening power. We do not consider that it is possible to distinguish between them as to actual healthfulness or efficiency if properly used and fresh samples are purchased. And it is interesting to observe that they vary quite widely in price, "as every woman knows," from the phosphate powders, at 16 cents a half pound, to the cream of tartar powders, at 30 cents to 35 cents, with the mono-sodium phosphate powder at 30 cents to 40 cents. The source of the raw materials causes this difference in price—some are more highly purified and more costly than others; and now that wines are no longer to be made this may make a further difference in the cost of the tartrate powders.

The alum powders, we believe, are still cheaper, and there are mixtures of the phosphate and alum powders which also we have not considered.

Mix With Discretion and Skill

For convenience, edibility, wholesomeness when properly used and baked and for the wide variety of breadstuffs that they add to the menu we owe much to the baking powders. Soggy, imperfectly cooked biscuits, muffins and griddle cakes, eaten *ad lib.*, are obviously bad. But the skillful and moderate use of these products affords much better and more even production than the old plan of each woman trying to guess just how much "saleratus" was needed to neutralize the sour milk used.

Use any one of the powders approved and listed with skill and discretion, employing baking powder products for variety and convenience, but not neglecting the yeast breads, and you may enjoy the pleasing results with security as to their healthfulness.

(Tested and endorsed by The Tribune Institute)

The Plan of Work

THESE PRODUCTS HAVE BEEN SUBJECTED TO A CHEMICAL TEST AND SHOWN TO BE OF EXCELLENT QUALITY, ACCURATELY LABELED AND FREE FROM ADULTERATION. COOKING TESTS IN THE INSTITUTE LABORATORY HAVE BEEN MADE TO DETERMINE THEIR EDIBILITY AND ADAPTATION TO SPECIAL USES.

THE RESULTS OBTAINED ARE REPORTED IN PART ON THIS PAGE, AND ANY FURTHER INFORMATION DESIRED MAY BE OBTAINED BY APPLICATION TO THE INSTITUTE.

ANNE LEWIS PIERCE,
Director Tribune Institute

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Tested and Approved Baking Powders

Cleveland Baking Powder Company, New York
Cleveland Superior Baking Powder

R. B. Davis Company, Hoboken, N. J.
Davis O. K. Baking Powder

General Chemical Company, Food Department, New York
Ryzon—The Perfect Baking Powder

Royal Baking Powder Company of New Jersey, New York
Royal Baking Powder

Rumford Chemical Works, Providence, R. I.
Rumford Baking Powder

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HAVE a piece of almond raisin shortbread, made with baking powder and hard to tell from cake? Doughnuts, corn griddle cakes, muffins and biscuit, with a delicious variation in the "marmalade pinwheels" (on the left-hand corner of the Institute kitchen table)—all these we owe to baking powders. Look up the recipes for them given on this page and remember that handling and baking are just as important to a wholesome baking powder product as what goes into it.

FREUDENHEIM PHOTO

What to Put in Doughnuts—How to Mix and Fry Them

NOW is the time of the year when doughnuts and coffee have an especial appeal. They are good for breakfast, luncheon or supper. We all have a fondness for a real New England doughnut, but to be perfect it must be made and fried "just so." It must not be too rich, nor must it be grease soaked.

Do not be too generous with butter, sugar or eggs, as a rich dough absorbs more fat in frying than a plain mixture. This is an excellent recipe:

New England Doughnuts

1 cupful of sugar	4 tablespoonsful of baking powder
1 tablespoonful of fat	1 teaspoonful of cinnamon
2 eggs	1 teaspoonful of salt
1 cupful of milk	½ teaspoonful of nutmeg
5¼ cupsful of flour	

Cream fat and sugar together, then add the well beaten eggs, milk, and lastly the spices and flour which have been sifted with the baking powder. A very soft dough absorbs more fat than a stiff one, but too much flour makes a doughnut that is not light.

Some time when you have riced potatoes left from dinner save them and make them into doughnuts. They add both to their deliciousness and their keeping qualities.

Potato Doughnuts

1½ cupsful of sugar	5¼ cupsful of flour
2 tablespoonsful of fat	4 teaspoonsful of baking powder
2 eggs	1 teaspoonful of salt
½ cupful of diced potato (heated)	1 teaspoonful of cinnamon
2-3 cupful of milk	½ teaspoonful of nutmeg

Krumbled Bran Doughnuts

1 cupful of sugar	3¼ cupsful of flour
2 tablespoonsful of fat	5 tablespoonsful of baking powder
3 eggs	1 teaspoonful of cinnamon
1½ cupsful of milk	½ teaspoonful of nutmeg
2 cupsful of krumbled bran	

Cream fat and sugar. Add well beaten eggs and spices and then the flour, which has been sifted with the baking powder, should be added alternately with the milk. Lastly add the bran.

Rich Crullers

¼ cupful of butter	3½ teaspoonsful of baking powder
1 cupful of sugar	1 cupful of milk
2 eggs	1 teaspoonful of cinnamon,
½ teaspoonful of salt	½ teaspoonful of nutmeg
4 cupsful of flour	

Cream butter and sugar. Add the well beaten yolks of the eggs and then the stiffly beaten whites. Stir in alternately portions of the milk and the flour which has been sifted with the spices and the baking powder. Toss on a floured board and roll very thin. Cut in pieces about three inches long by two inches wide. Make four one-inch parallel gashes at equal intervals. Take up by running the fingers through the gashes, toss in fat and fry.

Great care should be taken when frying the doughnuts. Do not fry them too long, and have the fat 185 degrees C. or 365 degrees F.

If you have no thermometer use the bread test. When the fat begins to smoke drop in a one-inch cube of soft bread, and if after one minute it is brown the fat is the right temperature.

Doughnuts rolled one-fourth of an inch thick can be fried in about three minutes if they are turned once to brown. A. S.

Four Woolly Dusters That Scatter No Dust

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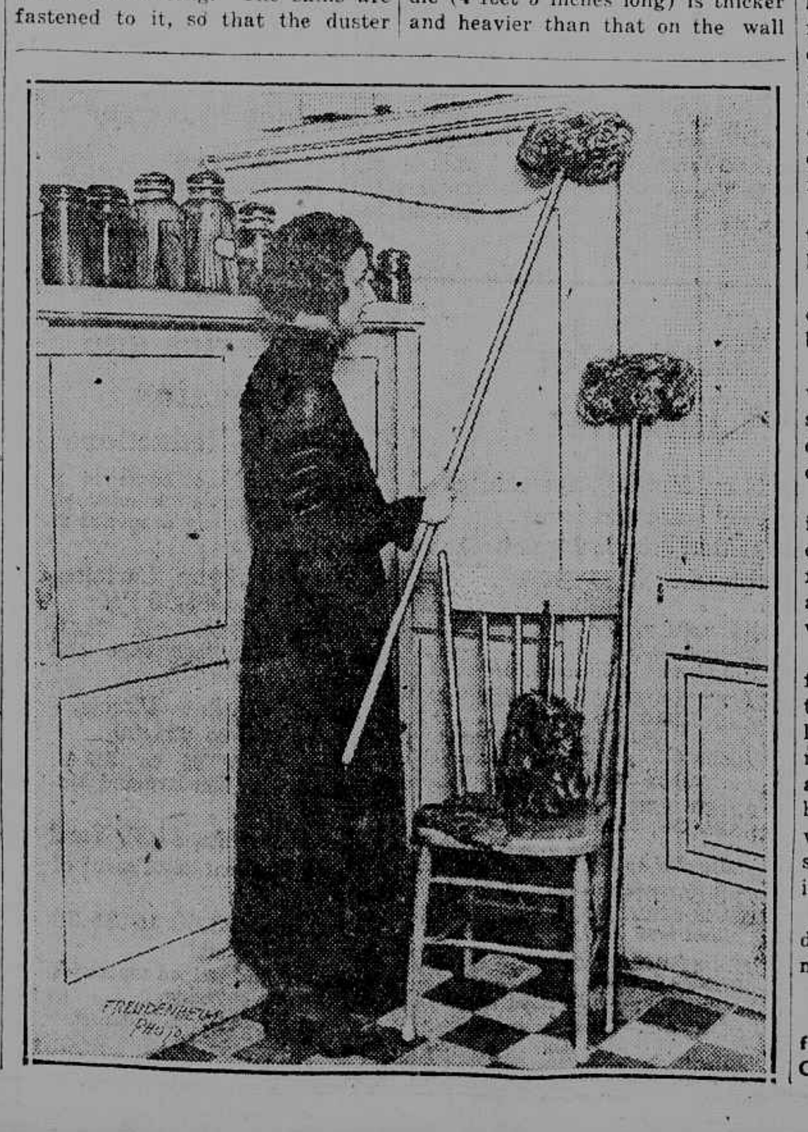
THE old feather duster that spread the dust far and near, only to have it settle down in a new place, hardly dares show itself in our twentieth-century sanitary world. But it held on long in the face of disapproval because it was so easy to use, and its handle gave it such an advantage over a cloth held close.

Now come the Barlow wool dusters, symmetrical bundles of soft, woolly skins, with handles of various kinds, according as one wishes to dust floors, walls and lintels, bookcases or automobiles. There is also a special mitt for stove work. They do not spread the dust, but absorb it into their woolly depths.

For Walls or Floors or Motors

The dusters are all made of the same natural wool skins (we should think from sheep) and are mounted on different frames and given different weights and lengths of handle, according to their use. For instance, the automobile duster examined is of rectangular shape, mounted on a light, flat wire frame, 8 by 3 inches, but the brownish, fluffy wool (looking rather like a Pekingese of high breeding) is 5 inches thick and 7 inches wide by 11 inches long. The handle, in this case attached at the short end, is 9 inches long, furnishing a hand duster that takes the place of its unsanitary feather prototype and is just the thing for the piano, the motor, the bookcase and the furniture.

For hardwood floors there is the duster mounted on a wooden block 3 inches thick by 2 inches wide and 6 inches long. The skins are fastened to it, so that the duster is 5 by 6 by 10 inches, and the handle (4 feet 5 inches long) is thicker and heavier than that on the wall duster. The latter is 4 feet 7 inches long and very light and thin, being fastened to the long side of the duster. Also the duster head, which is 3 inches by 8 inches, is fastened to a light wire frame, and so is easily held aloft, and is ideal for cleaning pictures, lintels, picture rails, plate shelves, walls, etc.



FREUDENHEIM PHOTO

Each of the dusters comes in three sizes and the wall brush may be had in five sizes.

The handles screw off from the top of the duster, so that the skins may be easily washed and dried.

These dusters are all easily washed. We did it, using lukewarm, soapy water, and when dried the duster was difficult to tell from the ones that had not been used.

The "stove mitt," or hand duster, is 5 by 8 inches, with the wool clipped to 1 inch in length. Green felt forms the back of the mitten, and it has a loop for hanging up when not in use.

These modern descendants of the feather duster have inherited all of their ancestors' good points (such as length of handle, hand preservation, no reaching and stretching, etc.), and acquired the characteristic of being dust-absorbing and sanitary, which shows that they must have some modern vacuum cleaner blood in them.

Is it not interesting how up-to-date and evolutionary even a duster may be?

Barlow's Wood Dusters.
Made by the H. P. Barlow Manufacturing Company, Watertown, Conn.

General Directions and Special Recipes for Getting the Best Results

ONE can scarcely conceive of the culinary world without baking powder. In these days of varied occupations for women we fear there would not be many hot breads, griddle cakes, doughnuts or cakes if this quick leavening agent were not with us. Its speed and cheapness make it the mainstay of the light housekeeper and the products are delicious.

However, there is almost no realm of cookery in which so many failures occur as in the using of baking powder. And it is a food which in order to be digestible should be very thoroughly cooked. There are a few general directions to be remembered always in the making of quick breads, as to proportions of flour, liquid, baking powder and shortenings.

Biscuits First

For baking powder biscuits the rule is one-half as much liquid as flour, from one to two tablespoonsful of shortening and two teaspoonsful of baking powder to each cupful of flour used. These biscuits are rolled out on a board, but drop biscuits may also be made by the addition of about three-fourths as much liquid as flour. They should be baked in a quick oven (400 degrees F.) for from twelve to fifteen minutes.

The drop biscuits may be varied by adding grated cheese, raisins or currants. And the rolled biscuits may be made into pinwheel biscuits of various kinds. Simply roll the dough out three-eighths of an inch in thickness and spread with any desired filling. Roll up and cut into three-fourths-inch pieces. Cinnamon and sugar mixed and spread is the usual type of pinwheel biscuit, but jams, marmalades or chopped nuts are delicious also. A mixture of currants, raisins and chopped citron gives a very nice biscuit to serve with afternoon tea.

We made a baking powder almond shortbread this week in the Institute which, when served hot, is delicious with coffee. It is very easy to make. Beat three eggs very light, add one cupful of sugar, one cupful of raisins and almonds mixed and two cupsful of flour which has been sifted with four teaspoonsful of baking powder and one-half teaspoonful of salt. Bake in a quick oven (400 degrees Fahrenheit) for about twenty-five minutes.

The simple basic recipe for baking powder biscuits for four persons is as follows: Two cupsful of flour, four teaspoonsful of baking powder, two tablespoonsful of fat, one cupful of milk and one-half teaspoonful of salt. This is for biscuits which are to be rolled out.

Maple Rye Biscuits

Sift together two cupsful of rye and two cupsful of white flour with four teaspoonsful of baking powder and one-half teaspoonful of salt. Add two cupsful of milk, one well beaten egg and two tablespoonsful of fat. Work the dough until smooth, place on a well floured board and roll out and cut into rounds, two for each biscuit. Spread one side with butter and scraped maple sugar and place together sandwich fashion. Leave in a warm place to rise for about ten minutes. Bake in a quick oven (400 degrees Fahrenheit) for twenty minutes.

Oatmeal Biscuits

Pour one cupful of milk over one cupful of oatmeal and allow to stand ten minutes. Sift together one and one-half cupsful of flour which has been sifted with three teaspoonsful of baking powder and one-half teaspoonful of salt. Work in two tablespoonsful of fat with fingers, then add the milk and oats mixture. Mix quickly and toss on a floured board. Cover entire surface of dough with flour, roll and cut out as for baking powder biscuits. Brush tops with milk and bake twelve minutes in a quick oven (400 degrees Fahrenheit). This makes about nine biscuits.

Griddle cakes stand next in popularity in the baking powder series and their proportions are two-thirds as much liquid as flour, one teaspoonful of baking powder to each cup of flour, one tablespoonful of fat to each two cupsful of liquid and one or two eggs to three cupsful of flour.

Plain wheat flour cakes are good, but we think corn meal cakes far surpass them when served with syrup and little browned sausages or crisp, curly bacon.

We made them also this week according to the following recipe:

Corn Meal Griddle Cakes

Sift one cupful of corn meal with one and one-fourth cupsful of flour, together with four teaspoonsful of baking powder, one-half teaspoonful of salt and two tablespoonsful of sugar. Add to this mixture very gradually so as not to lump one and one-half cupsful of milk, one beaten egg and two tablespoonsful of fat. Beat well and bake in the usual fashion on a hot griddle. Small cakes of this kind are much more attractive than large ones.

In baking griddle cakes either an aluminum, soapstone or iron griddle can be used, or, in fact, even an ordinary frying pan, if you are not fortunate enough to have a griddle. Be very cautious in the use of grease, the less the better. And have your griddle smoking hot before pouring on the batter. Always drop from the tip of the spoon, not the side, in order to insure a well rounded cake. The cakes are ready to turn when they are full of bubbles. They should be turned only once if you would have light, delicious cakes.

Muffins—Plain and Otherwise

The proportions for muffins are one cupful of milk, two cupsful of flour, and from one to three tablespoonsful of fat. The flour and baking powder should be sifted several times in making muffins, so that the crumb will be light and delicate. They should not be beaten very much, only enough to mix the ingredients well. Bake in a hot oven (375 degrees Fahrenheit) for about twenty-five minutes.

Pecan Muffins

Sift one-half cupful of graham flour with two cupsful of corn meal, three teaspoonsful of baking powder, one tablespoonful brown sugar and one-half teaspoonful of salt. Add one well beaten egg which has been mixed with one and one-half cupsful of milk. Beat well and lastly add two tablespoonsful of fat, together with one-half cupful of chopped pecans. Bake in a quick oven (400 degrees Fahrenheit) for twenty-five minutes.

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